

WHAT IS CLAIMED IS:

1. An intelligent, program controlled system for providing services relating to financial data computation, report remittance and funds transfer over an interactive communications network, the system having programming which comprises:

① a first security function for protecting the system from entry of unwanted data during data transfer over the network;

② a second security function for controlling user access to at least one of the system services;

③ a subscriber availability function for monitoring the availability of subscriber servers;

④ a notification function for transmitting a message to a system administrator when a selected condition has been met;

⑤ an operating system function for monitoring the usage of the operating system;

⑥ a system availability function for monitoring the availability of internal support processes;

⑦ a system backup and recovery function for periodically performing backup of system data so as to maintain a plurality of duplicate data sets on each system server for auditing and database recovery;

⑧ a secure access function for allowing a system administrator to access the system remotely, the service having programming for encrypting all data transferred so as to eliminate eavesdropping, connection hijacking and network-level virus attacks;

⑨ a system utility function for tracking login/logout, object creation, deletion, editing and rule base changes; and

⑩ a system load balancing and scalability function for managing system resources, for

balancing the data load between servers, for detecting a selected change in data load and activating standby systems for handing increased system data volume, and for switching the data load from one server to the other upon server failure.

707/10
5 2. A multilayer architecture for a program controlled system for providing services relating to financial data computation, report remittance and funds transfer over an interactive communications network, the system comprising a subscriber layer, an interactive communications network layer, an applications layer, a database layer and a financial link layer:

the subscriber layer including

10 a subscriber server for hosting a virtual portal having at least one application for providing e-content to end users, the application including a network browser for accessing, displaying and transmitting data over the network,

a first service provider server for allowing a system administrator to access the system remotely,

15 a first security system for protecting the system from entry of unwanted data during data transfer over the network between the subscriber and service provider servers, and the interactive communications network level,

a second security system for protecting the system from entry of unwanted data during data transfer over the network between the financial link layer and the financial institution, and

20 a load balancing and scalability system for load directing, routing and switching functions during data transfer;

the interactive communications network layer including a server having

programming for receiving a tax computation transaction request from the subscriber server, transmitting the request to the applications layer, and returning data processed by the applications layer to the subscriber server;

the applications layer including at least one server having application transaction services programming for financial data computation and report remittance over the network, and infrastructure services programming for system management and administration;

the database layer having a plurality of database servers for storing a tax computation transaction request initiated from the subscriber server and a response of data processed by the applications layer, and

the financial link layer having redundant programming for effecting electronic transfer of funds to a selected financial institution over the interactive communications network.

3. A multilayer architecture for a program controlled system for providing services relating to financial data computation, report remittance and funds transfer over an interactive communications network, the system comprising a subscriber layer, an interactive communications network layer, an applications layer, a database layer and a financial link layer:

the subscriber layer including

a subscriber server for hosting a virtual portal having at least one application for providing e-content to end users, the application including a network browser for accessing, displaying and transmitting data over the network,

a first service provider server for allowing a system administrator to access the system remotely,

a first security system for protecting the system from entry of unwanted

data during data transfer over the network between the subscriber and service provider servers, and the interactive communications network level,

a second security system for protecting the system from entry of unwanted data during data transfer over the network between the financial link layer and the financial institution, and

a load balancing and scalability system for load directing, routing and switching functions during data transfer;

the interactive communications network layer including a plurality of network servers, each having redundant programming for receiving a tax computation transaction request from the subscriber server, transmitting the request to the applications layer, and returning data processed by the applications layer to the subscriber server;

the applications layer including a plurality of application servers, each having redundant application transaction services programming for financial data computation and report remittance over the network, and infrastructure services programming for monitoring system management and administration;

the database layer having a plurality of redundant database servers for storing a tax computation transaction request initiated from the subscriber server and a response of data processed by the applications layer to the service provider server, and

the financial link layer having redundant programming for effecting electronic transfer of funds to a selected financial institution over the network.

4. A multilayer architecture for a program controlled system for providing financial data computation, report remittance and funds transfer services over an interactive

communications network, the system comprising:

a subscriber server for hosting a virtual portal having at least one application for providing e-content to end users, the application including a network browser for accessing, displaying and transmitting data over the network,

5 a first service provider server for allowing a system administrator to access the system remotely,

a first security system for protecting the system from entry of unwanted data during data transfer over the network between the subscriber and service provider servers, and the interactive communications network level,

10 a plurality of primary servers including a primary network server, a primary tax computation server, a primary report generation server and a primary tax remittance server, the network server receiving a tax computation transaction request from the subscriber server, transmitting the request to the primary tax computation server, and returning data processed by the tax computation server to the subscriber server;

15 a plurality of secondary servers redundant to the first and including a secondary network server, a secondary tax computation server, a secondary report generation server and a secondary tax remittance server, the network server receiving a tax computation transaction request from the subscriber server, transmitting the request to the secondary tax computation server, and returning data processed by the tax computation server to the subscriber server; and

20 a load balancing and scalability system for load directing, routing and switching functions, during data transfer, from utilization of at least one function at one of the primary servers to a corresponding function at a secondary server for optimum management of system resources.

5. A multilayer architecture for a program controlled system for providing financial data computation, report remittance and funds transfer services over an interactive communications network, the system comprising:

a subscriber server for hosting a virtual portal having at least one application for providing e-content to end users, the application including a network browser for accessing, displaying and transmitting data over the network;

a first system provider server for allowing a system administrator to access the system remotely;

a first security system for protecting the system from entry of unwanted data during data transfer over the network between the subscriber and service provider servers, and the interactive communications network level;

a plurality of primary servers including a primary network server, a primary tax computation server, a primary report generation server and a primary tax remittance server, the network server receiving a tax computation transaction request from the subscriber server, transmitting the request to the primary tax computation server, and returning data processed by the tax computation server to the subscriber server;

a plurality of secondary servers redundant to the first and including a secondary network server, a secondary tax computation server, a secondary report generation server and a secondary tax remittance server, the network server receiving a tax computation transaction request from the subscriber server, transmitting the request to the secondary tax computation server, and returning data processed by the tax computation server to the subscriber server; and

a load balancing and scalability system for load directing, routing and switching functions, during data transfer, from utilization of at least one function at one of the primary

servers to a corresponding function at a secondary server for optimum management of system resources;

at least one of the servers having redundant network services programming for financial data computation and report remittance over the network, and for infrastructure services programming for system management and administration.

6. A method for automatically computing sales tax on a selected transaction, reporting the taxes owed, and transmitting funds corresponding to the taxes owed over an interactive communications network, the method comprising the steps of:

(i) sending a transaction request from a network browser of a subscriber server, over the network, to a firewall of a program controlled system for providing financial data computation, report remittance and funds transfer services;

(ii) obtaining approval for passage of the request through the device and sending the approved request to a primary network server;

(iii) transmitting the request from the primary network server to a primary tax computation server;

(iv) computing the taxes owed on the computation server;

(v) storing the taxes computed in a database server under a selected subscriber account;

(vi) sending a response with the amount of taxes computed to the subscriber server;

(vii) transmitting the taxes computed to a reporting server upon receiving a report transaction request from the subscriber server and/or government authority;

(viii) reporting the data processed by the tax computation server to the subscriber server

and/or government authority; and

(ix) remitting funds corresponding to the taxes computed to a server of a selected financial institution for transmission to a selected government authority.

5 7. A method for automatically computing sales tax on a selected transaction, reporting the taxes owed, and transmitting funds corresponding to the taxes owed over an interactive communications network, the method comprising the steps of:

10 (i) sending a transaction request from a network browser of a subscriber server, over the network, to a firewall of a program controlled system for providing financial data computation, report remittance and funds transfer services;

 (ii) obtaining approval for passage of the request through the device and sending the approved request to a primary network server;

15 (iii) transmitting the request from the primary network server to a primary tax computation server, whereupon failure of the primary network server, a load balancing and scalability system redirects the data transfer from the primary network server to a corresponding secondary network server, the secondary server having programming that is redundant to that of the primary network server;

20 (iv) computing the taxes owed on the computation server, whereupon failure of the primary tax computation server, a load balancing and scalability system redirects the data transfer from the primary tax computation server to a corresponding secondary tax computation server, the secondary tax computation server having programming that is redundant to that of the primary tax computation server;

 (v) storing the taxes computed in a database server under a selected subscriber

account;

(vi) sending a response with amount of taxes computed to the subscriber server, whereupon failure of the primary tax computation server, a load balancing and scalability system redirects the data transfer from the primary tax computation server to the corresponding secondary tax computation server;

(vii) transmitting the taxes computed to a primary reporting server, whereupon failure of the primary reporting server, a load balancing and scalability system redirects the data transfer from the primary reporting server to a corresponding secondary reporting server, the secondary reporting server having programming that is redundant to that of the primary reporting server;

(viii) reporting the data processed by the tax computation server to the subscriber server and/or the government authority; and

(vii) transmitting the taxes computed from the primary reporting server to the primary remittance server, whereupon failure of the primary remittance server, a load balancing and scalability system redirects the data transfer from the primary remittance server to a corresponding secondary remittance server, the secondary remittance server having programming that is redundant to that of the primary remittance server; and

(viii) remitting funds corresponding to the taxes computed to a server of a selected financial institution for transmission to a selected government authority.

8. A method for preventing entry of unwanted data to a system for providing financial data computation, report remittance and funds transfer services over an interactive communications network, the method comprising the steps of:

i. receiving a transaction request from a network browser of a subscriber server;

ii. parsing the transaction request for data including a session key encrypted using the subscriber server's public key to a service provider server;

iii. if the session key is located, then approving the transaction request for entry to the system; and

5 iv. sending the transaction request to the service provider server.

9. A method for controlling user access to a system for providing financial data computation, report remittance and funds transfer services over an interactive communications network, the method comprising the steps of:

10 i. initiating a connection between a subscriber server and a service provider server;

ii. sending a selected certificate of authenticity from the service provider server to the subscriber server;

iii. verifying the service provider server certificate at the subscriber server;

iv. sending a subscriber certificate to the service provider server;

15 v. authenticating the subscriber at the service provider server; and

vi. sending a session key encrypted using the subscriber server's public key to the service provider server so as to establish a secure connection between the subscriber server and the service provider server.